REMARKS

Reconsideration of the application is respectfully requested for the following reasons:

1. Amendments to Specification and Claims

The claims, specification, and abstract have been revised to place the application in proper U.S. format and correct various minor grammatical and idiomatic errors. Because the changes are all formal in nature, it is respectfully submitted that the changes do not involve new matter.

2. Rejection of Claims 1-7 Under 35 USC §102(b) in view of U.S. Patent No. 5,881,366 (Bodenmann)

This rejection is respectfully traversed on the grounds that the Bodenmann patent fails to disclose or suggest a wireless receiving method or apparatus in which a single MCU processes different types of signals from different peripheral devices by:

- identifying the signal types;
- performing a process of a ***first*** **pre-stored processing procedure** on a ***first*** **signal type**;
- storing an **index** to mark the last finished step for the first signal type;
- performing a process of a ***second*** **pre-stored processing procedure** on a ***second*** **signal type**;
- storing an **index** to mark the last finished step for the second signal type;
- performing and indexing processing steps for the remaining signal types, if any;
- performing a ***next*** process of the ***first*** **processing procedure** on the ***first*** **signal type**;
- storing an **index** to mark the last finished step for the first signal type;
- performing a ***next*** process of the ***second*** **processing procedure** on the ***second*** **signal type**;
- storing an **index** to mark the last finished step for the second signal type;

- repeating for remaining signal types, if any, and remaining processing steps, if any.

Instead of disclosing a method and apparatus that performs, on ***all*** of the identified signal types, ***first*** processes (or steps) of respective processing procedures for the different signal types and stores indices marking the last finished step of the processes so that the MCU will be able to find the next processing step, and only then performing ***second*** processes on ***all*** identified signal types, the Bodenmann patent concerns a signal format in which different peripheral devices having transmitters operating at different frequencies use a **common frame structure**. The Bodenmann patent does not disclose the order in which a receiver's MCU processes the received signals, and in particular does not include any suggestion that:

- processing is performed in a sequential manner so that after a first process (or set of steps) has been applied to a first signal type, the processor indexes (*i.e.*, marks) the last step and only then moves on to the corresponding process for the next signal type, as recited in independent claims 1 and 7.

To the contrary, col. 7, lines 43, the Bodenmann patent suggests that:

> *In the event the configuration includes a host and a plurality of peripheral devices, it may also be necessary for the host or master to synchronize the messages or emissions transmitted by the various peripherals, such as a plurality of interactive gamepads or joysticks.* ***In such instance, the objective is to allow each peripheral to transmit in its turn.***

This passage appears to teach away from the claimed invention or, at best, indicates that Bodenmann did not consider the possibility that the receiver's MCU could simultaneously process received signals rather than relying on synchronization *by the host computer* connected to the receiver.

Instead of providing a receiver that essentially processes signals in a time division multiplexed manner, Bodenmann relies on the **host** (to which the receiver is connected) to synchronize transmissions through polling and/or transmission of synchronizing short messages

(depending on the type of peripheral device). Such synchronization by the host is not necessary in the claimed invention, because the receiver accepts and processes simultaneously received signals, one process or step at a time, in sequence, based on **internally-stored processing procedures** that do not require host involvement.

The output of the claimed receiver is identical to that of the conventional receiver, shown in Fig. 1 of the present application, the difference being that the recited sequential processing and **stored indices** enables a single MCU, rather than two MCUs, to process multiple received signals. As a result, the claimed single-MCU receiver can be plugged into a host in place of a dual-MCU receiver without modification of the host, or of the peripheral devices. According to the claimed invention, there is ***no need*** for a special signal format, as disclosed in the Bodenmann patent, and ***no need*** for host synchronization of peripheral-to-receiver transmissions.

Because the Bodenmann patent does not disclose all elements recited in claims 1-7, and in particular the application of single processing steps, followed by indexing, to each signal type in sequence so that the signals can be processed in parallel in real time without the need for dual MCUs, as recited in claims 1 and 7, withdrawal of the rejection under 35 USC §102(b) is respectfully requested.

Having thus overcome the sole rejection made in the Official Action, withdrawal of the rejections and expedited passage of the application to issue is requested.

Respectfully submitted,

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